

Remarks

The instant Office Action dated December 10, 2007 listed the following rejections and objections: claims 1 and 5-10 stand rejected under 35 U.S.C. § 102(b) over Mao (U.S. Patent No. 6,191,564); claim 2 stands rejected under 35 U.S.C. § 103(a) over Mao in view of Ostrom (U.S. Patent No. 6,661,212); claims 3-4 stand rejected under 35 U.S.C. § 103(a) over Mao in view of Hawkes *et al.* (U.S. Patent No. 6,181,120); and the drawings, the specification and the abstract are objected to.

Applicant respectfully traverses the § 102(b) rejection of claims 1 and 5-10 because the cited portions of the Mao reference do not correspond to the claimed invention which includes, for example, aspects directed to opening an additional current path when the output voltage across the output capacitor reaches a predetermined maximum value. The Examiner improperly asserts that the cited portions of Mao teach closing switch 46 when the voltage across capacitor 40 reaches a predetermined maximum value. *See, e.g.*, Figure 4. The cited portions of Mao do not mention any such relationship between the voltage across capacitor 40 and the operation of switch 46. More specifically, the cited portions of Mao teach that resistors 42 and 44 sense the output voltage across load 48 and present an output-indicating signal i_{indout} at an output-indicating node 50; a feedback circuit 52 uses the output-indicating signal, along with several other signals (*e.g.*, input-indicating signal i_{indin}), to control switch 46. *See, e.g.*, Col. 3:39 to Col. 4:36. Mao fails to make any mention that switch 46 is closed when the output voltage sensed by resistors 42 and 44 reaches a predetermined maximum value. Thus, the cited portions of Mao do not teach opening an additional current path when the output voltage across the output capacitor reaches a predetermined maximum value as in the claimed invention. Accordingly, the § 102(b) rejection of claims 1 and 5-10 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the § 102(b) rejection of claim 6 because the cited portions of the Mao reference do not correspond to aspects of the claimed invention directed to closing the additional current path when a second predetermined output voltage is reached. The cited portions of Mao do not mention opening switch 46 when the voltage across capacitor 40 reaches a second predetermined value. *See, e.g.*, Figure 4. As discussed above, the cited portions of Mao teach measuring the output voltage across load 48; however, there is no mention of opening switch 46 when the voltage across capacitor 40

reaches a second predetermined value as in the claimed invention. *See, e.g.*, Col. 3:39 to Col. 4:36. Accordingly, the § 102(b) rejection of claim 6 is improper and Applicant requests that it be withdrawn.

Applicant respectfully traverses the § 103(a) rejection of claims 3-4 because the Examiner fails to establish a *prima facie* case of obviousness. The Examiner relies upon improper conclusory statements in asserting obviousness, thereby directly contradicting the U.S.P.T.O. guidelines for maintaining an obviousness rejection under KSR (“Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”). *See KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (U.S. 2007). The Examiner acknowledges that Mao does not disclose that the additional current path is a low impedance path that includes a resistor. The Examiner then simply concludes that the skilled artisan would combine some unidentified teaching of the Hawkes reference with Mao for the purpose of increasing the efficiency of the converter. However, this conclusion is unsupported by any rationale in the cited references. The Examiner also has not presented any evidence that the proposed modification would increase the efficiency of Mao’s converter. Moreover, the Examiner fails to even identify which teachings of Hawkes are to be combined with the Mao reference.

In view of the above, the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, the § 103(a) rejection of claims 3-4 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the § 103(a) rejections of claims 2-4 because the cited portions of the Mao reference do not correspond to the claimed invention as discussed above in relation to the § 102(b) rejection of claim 1. In at least his regard, the § 103(a) rejections of claims 2-4 are improper in that these claims depend from claim 1. Accordingly, Applicant requests that the § 103(a) rejections of claims 3-4 be withdrawn.

Applicant respectfully traverses the objection to the drawings because the applicant for a patent is only required to furnish a drawing of his or her invention where necessary for the understanding of the subject matter sought to be patented. *See, e.g.*, 37 CFR 1.81(a). Applicant submits that aspects of the claimed invention directed to a feedback circuit and the integration of the feedback circuit with the additional circuit path would be clear to one

of skill in the art based upon Applicant's specification. *See, e.g.*, paragraphs 0034 and 0037 which contain discussion relating to a control unit. Thus, the feedback circuit need not be shown in the drawings because it is not necessary for understanding by the skilled artisan of the subject matter sought to be patented. Applicant further submits that support for aspects of the claimed invention directed to the power converter being one of a buck converter, a boost converter, and a buck/boost converter can be found in Figures 1-4, which Applicant's specification identifies as buck converters. *See, also*, paragraph 0021. As such, these aspects of claim 9 would be clear to the skilled artisan based upon Applicant's specification. Accordingly, the objection to the drawings is improper and Applicant requests that it be removed.

Regarding the objection to the abstract, it is unclear to Applicant what the Examiner is basing the objection upon. Applicant previously presented an amended abstract in the Office Action Response and Amendment dated September 25, 2007. In the instant Office Action, the Examiner lists various guidelines regarding the proper format of an abstract; however, the Examiner does not indicate how Applicant's abstract does not comply with these guidelines. Applicant submits that the previously presented amended abstract is sufficient. Thus, Applicant requests that the objection to the abstract be withdrawn or that the Examiner provide clarification regarding which part of Applicant's abstract the objection is based upon.

Applicant respectfully traverses the objection to the specification because Applicant's specification provides sufficient support for the claim term "feedback circuit". Applicant submits that support for the claimed feedback circuit can be found, for example, in paragraphs 0034 and 0037, which contain discussion relating to a control unit that provides feedback to controlled current source 22 (or variable resistor 34) responsive to the output voltage. Applicant notes that word for word correspondence between the claims and the specification is not required. *See, e.g.*, M.P.E.P. § 2163.02. Accordingly, the objection to the specification is improper and Applicant requests that it be removed.

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In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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